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ORIGINAL ARTICLES.

Cerebral Hyperæmia.

BY W. S. LIDSAY, M.D., TOPEKA, KAS.

Read at the Thirty-first Annual meeting of the Kansas Medical Society, Topeka, May 12-14, 1897.

The conditions of blood supply to the brain, would perhaps better express the text to which your attention is invited by this paper. Since ebb and flow succeed each other in this vascular centre of animation, and too since true anemia of the brain exists with the most marked hyperæmia.

I confess to you that I approach this much discussed subject with a degree of trepidation on account of the great diversity of opinion which is entertained concerning it, and also because of the paucity of our knowledge of the physiological operations within this supreme organ of our bodies.

In looking over some of the literature of the past forty years on the circulation of blood in the brain, I am impressed with the oscillation of beliefs of those looked upon as masters in our art. At this time, which seems remote when we talk of modern brain teaching, the cavity of the calvaria was said to be a plenum, and consequently the quantity of blood within its walls remained the same at all times.

Following this we find in teachings on the brain, articles entitled vascular irritation, active congestion, cerebral congestions, etc., giving great pre-eminence to the changes in blood pressure in the brain. Within the past five years one text-book author, in a chapter of fifty pages in a one volume work, affirms that cerebral hyperæmia can produce symptoms of apoplexy, paralysis, convulsions, a soporific condition, mania and aphasia. This view was not held by many so recently as the one just mentioned, this date marking the return of the pendulum to the starting point of a forty year's migration, with some modifications-souvenirs of the travel. We now find ourselves in the condition that recent neurological text-books omit chapters under this heading, and make most cautious statements regarding it.

One of the most ardent champions in the attempt to remove this ancient land-mark is our worthy countryman, Landon Carter Gray, who began his crusade in an inaugural address as president of the New York Neurological Society in 1890.

Two years ago in summarizing this subject, Dr. Gray, apparently attempting to make a very sweeping assertion, states, "I, for my part, would state very positively that a diagnosis of hyperæmia or anæmia of the brain is not possible by means of the nervous system alone." Please observe the latter clause. To make a diagnosis of a brain disorder is not easy in many cases, and to require that in this obscure condition we shall be restricted to purely nervous phenomena, as the term is generally used, seems to me quite unnecessary. One great essential to the cell function of the brain, is a full and regular supply of red blood in the capillaries from which the cells may appropriate to themselves nourishment, and into which current they may deposit their waste. The wholesomeness of this liquid pabulum depending quite as much on the regularity of its flow as on the character of its corpuscles when they leave the heart. Any stasis of circulation then hinders the waste and repair process so essential to brain function. The operations of the activities of the brain are so rapid that they admit of no delay for fuel with which to

generate impulses, nor for space in which to work by reason of the accumulation of debris.

There is no room for the storage of supplies in this cavity—all depending on reaching into the current, which must be regularly active to fulfill the requirements. Now how may this regular supply be interferred with by changes in the blood current?

In the first place, a sudden rush of blood into distended arterioles prevents their normal contraction by reason of unusual pressure from within, and the current into the capillaries is thereby impeded. Here we have the condition of acute active hyperæmia.

Passive hyperæmia occurs where there is interference with venus flow from the cortex of the brain, giving essentially the same hindrance to cell nutrition. In cases where, from long continued pressure of blood the arterioles become permanently distended, we get the slow current, bad sewage, as well as slow food supply, and the condition of chronic active hyperæmia.

Two cases recently coming under my observation have directed my attention to this line of thought, and I detail them to you, not believing that two cases are sufficient to establish whst I conceive to be the centre of the arc described by my fancied oscillating pendulum, but as premises for some conclusions which seem to me rational. These cases seem to me to fairly illustrate the two forms of active hyperæmia I have described.

Case No. I—Male, age 36 (?), married. Twelve years ago became overheated washing windows in bright light in front of drug store. In 1896 had an attack like the present, but not so severe. Nine years ago had rheumatism. A brother had attack of heat stroke.

This man has a good education, and has been in active life managing a large hardware and implement business successfully, and discussing the financial question with great vigor. When he addressed me his face was suddenly flushed, and he hesitated several seconds before he could begin to tell the object of his visit. This flush and feeling of fullness he was conscious of.

When he attempted to tell his age he was in doubt about it, and cried when asked where he was born—every mental effort being accompanied by flushing of the face, till after half an hour or more of acquaintance he was more composed. I was unable to find organic lesion of any importance outside the head, and there no localized symptoms. This is a vigorous young man who has always been thought to be unusually strong in both mind and body. The father said to me in speaking of this case, "We were surprised that our fine son should have anything the matter with him."

He complained of headache, and at times when the flush of the face occurred he said his mind seemed to leave him. At this time there was contraction of pupils.

Case No. II—Male, age 53, bachelor, weight fully normal, good color of skin. Suffers from unsteadiness of vision, palpitation of heart at intervals varying from one to three months. Has spasm of throat muscle on mental excitement, which interferes with distinct articulation. Has polyurea, frequently emptying a full bladder four to six times in a night; has a vague unrest and is anxious about himself.

This man is intelligent and acutely observing, giving details of his case with great minuteness, but frequently pausing apparently to give time for mental operation. Muscular strength is normal, but can continue a very short time in contraction. Some defects of digestion, but appetite is good and bowels move regularly. Lung sounds normal. Visual field very irregular. Heart sounds normal, except dropping of one beat in forty. Examination of urine shows no pathological changes.

In neither of these cases was there evidence of specific disease, and I am satisfied that none has existed. There was also clear proof of no excessive use of alcohol.

In both cases we have clearly vascular brain disturbance.

In case No. 1, from overheating at one time and over mental exertion at another, we have recurrences of unusual blood pressure, and recurrent interference with mental operation in active form. Here the

great flood interferes with normal conditions by overcoming the elastic muscular coat of the arterioles, and thus lessening the rate of the blood current.

In case No. 2, disorder of motor impulse is shown by the spasm of throat muscles, irregularity of muscles of acommodation of the eyes, lack of continuity of impulse to sustain continued muscular contraction. Higher cell weakness is shown by the waiting necessary to ordinary mental operations, also by the effect on the secretion of urine, a familiar example of which is seen in the temporary impetus given to this function by anxiety. In this case there is not the acute state of over supply, but from long continued fullness dilatation of vessels has reasonably taken place to the extent of slowing the current and lessening capillary circulation in the cortex of the brain, thus causing diminution in cell energy, irregularity of functions as shown being the natural consequence.

The ambition of the expert neurologists now-a-days is to locate at a very definite point in the brain, the exact seat of disorder, and this is laudable, but until we have more stable moorings, more fixed points from which to form working formula let us not be in haste to remove the piers upon which our superstructure has been reared.

When we see throbbing carotids and temporals with headache, tinnitus aurium, that peculiar fullness described by a patient, wakefulness at night, emotional manifestations without adequate cause, we have over action of the heart without corresponding contraction of arterioles in the brain, constituting acute or recurrent active hyperæmia—this is our first case. When we see the mental introspection, the minute details of personal ailment, the symptoms frequently classified as neurasthenia, we have chronic active hyperæmia, which is our second case.

The character of the brain substance being so yielding there is little support to cerebral vessels from without, and dilatation readily occurs. The variations of cardiac and vascular pressure are so frequent it seems reasonable that dilatation of vessels should occur.

Paralysis of vaso-motor nerves also produces dilatation of vessels, which may be seen in an ophthalmic examination and in the flushing of the face from mental excitement.

Thoughts of Leading Medical Lights.

Medical Summarie.

When a woman frequently aborts, and no cause can be found, give her antisyphilitic treatment—Parvin.

Gynecology is as much surgical as medical practice, probably a great deal more so; and the modern gynecologist who may not handle a knife is very much like the modern soldier who is prohibited from using gunpowder—W. S. Playfair.

Glycerin has decided power in preventing fermentation in the stomach—Bartholow.

Chorea that cannot be controlled justifies the aduction of abortion—Lusk.

The increase of tapeworms is attributable to the increased amount of raw aud very rare beef eaten—Bartholow.

It is held that the discharge from jequiritic ophthalmia may infect healthy eyes—Shoemaker.

One full dose of pictroxine, 1-40 gr., at bedtime is sufficient ta control the night-sweats of consumptives—Cauldwell.

The true use of a porus plaster is to retain the back in its proper position and let the pain crawl out the holes—A Milwaukee Druggist.

Permanganate of potash as an excitant of the menstrual flow is, I think, the best emenagog which has yet been discovered—Thomas.

The obstetric forceps is probably the most life-saving instrument that surgery has ever invented; the only real improvement made in the obstetric forceps since the days of Smellie & Levret is that of Tarnier—Thomas.

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Topeka, Kansas, Saturday, July 24, 1897.

DR. EMORY LANPHEAR, the editor of the *American Journal of Surgery and Gynecology*, has been waging war on the quackish methods of some of the physicians of St. Louis. Among those named are men who will be recognized as among the most prominent men in the State. Why men who have wealth and renown should resort to the methods of the quack to secure a little more business is hard to understand. It is harder, however, to explain why hospitals and colleges should belittle themselves and their supporters in such schemes as seem to have been the fad in St. Louis. The *Journal of Surgery and Gynecology* certainly deserves credit for its fearless defense of professional honor, but it looks as though it might be a hopeless war. Professional honor can be maintained only where there is honor in the individual. That requirement of morality in the student manifests its importance in the physician. Respect for professional etiquet cannot be expected from the student whose standard of morality is low or whose training has been deficient.

THE ethics of the St. Louis profession is probably no more demoralized than in many other places, especially Kansas. Every few days our attention is called to some flagrant violation of ethics. The most recent instance is the advertising sheet sent out by a physician in western Kansas who is the proprietor of a sanitorium. This gentleman is a member of a number of societies, among them the Kansas Medical Society and the American Medical Association. The "Bulletin" which he has published is devoted entirely to the advertisement of his sanitorium, and is sent promiscuously to the profession and the laity. There can be no excuse for such glaring breeches of etiquet by men who have every advantage and every possibility of maintaining a high stand in the profession. Such things have passed unnoticed too long by the profession in this State.

THE announcements of the Kansas Medical College for the session of '97 and '98 are now being mailed. The new announcement is a credit to the college. Several changes will be recognized in the teaching force of the college. Several new names have been added. A three year's course is required.

Proceedings of the Academy of Medicine and Surgery.

MINUTES OF MEETING OF MAY 10.

Cerebral Hyperaemia, (W. S. Lindsay, M.D.)—See page 401.

Discussion—Dr. Stewart: This is certainly a very interesting subject. As to the causes of this condition I don't know that doctor gave any especial cause. In some of

these cases there is a disturbed digestion. I call to mind a case where I was called to an office one morning where a gentlemen had just came from a ride on the cars. Soon after coming in he had fallen into an unconscious condition. When I saw him he had a paralysis of left side of the body. I immediately concluded that he had had a hemorrhage of the brain. One pupil was dilated, the other normal. After a few moments he regained consciousness and tried to speak which he was unable to do. I asked him to move his arm. This with great effort he was able to do, a few minutes later he was able to move his leg. When asked to show his tongue it was slightly defected and tremulous. A few minutes later could speak distinctly and asked to be taken to the home of his daughter. On the arrival of the ambulance he was able to walk about the room. This rapid recovery occurred within a half an hour. The history of the case was as follows: The man had had typhoid fever and before having fully recovered had been traveling, and subject to the usual hardships of traveling, irregular meals and loss of sleep. This had produced a condition of the digestive organs that resulted in the condition above. Our diagnosis was an acute hyperæmia of the brain, inducing vertigo and the phenomena described.

Dr. Minney: I do not know anything about it, but I have experienced some of the symptoms myself. When studying continuously for some time I have felt a sense of logginess. I would like to know how that is produced and what are the existing causes and how to differentiate between a general and local hyperæmia of the brain. I remember I had a case of eye trouble, corneal ulceration. I called in the doctor and he said it was hyperæmia of the base of the brain. I thought it rather a fine diagnosis. Afterwards the patient went to Chicago, where the same diagnosis was made. Three or four years later he died.

Dr. Lindsay: Dr. Stewart refers to causes of hyperæmia. I appreciate that to take up the subject of causes would cover a great deal of ground, and many things that might be said to lead up to this condition. I think it safe to say that there is a variety of causes. The purpose of my paper was to take up the condition itself. It is not the province of this paper to treat of the causes of hyperæmia. We may have anæmia of the brain following hyperæmia. Now the case that Dr. Stewart refers to and which was a case of vertigo, is a more temporary condition than what we refer to as a hyperæmia of the brain. It might be compared with the delirium of fever and that of insanity. Vertigo is a form of cerebral hyperæmia. Now Dr. Morgan's case went beyond hyperæmia of the brain, and many cases do go beyond. Such persistent hyperæmia results in the formation of new structures and is followed by sclerosis. That also is beyond the province of this paper. Dr. Minney asks why this should be localized. This may come from trombosis. You know this, that in a great many cases of autopsies of insane people you will find areas in which you can see a difference in the tissues and you will find too a great many times marked adherence. I do not think you can localize particular areas. Dr. Stewart asks if hyperæmia is organic. Now this is a physical disturbance. Gray says it is very easy to step from a hperæmic to an organic case. My second case was one, I think, very near akin to neurasthenia. This cases can be cured, but it is a slow process. I think the patient has less resistance and is less capable of mental activity, but I do not consider them necessarily in an incurable condition. I wonder you did not ask me what I did for these cases of acute hyperæmia. I did not want to effect the vessels, but to reduce the quantity of blood to the brain. I put him on a diet and put him in baths in which I sweat him to a finish. I kept up this plan of treatment for four months, giving him occasionally a mild saline laxative. This was practically all that I did for him, though I did give him occasionally a little other medicine. The man is now practically well.

A Case of Chyluria—S. G. Stewart, M.D.

On July 26, 1896, a young man came into my office. He had general dropsy, very

anæmic, with pulse 120 and regular. Gave a history of failing health during the past year. In examination of the urine on the addition of nitric acid it would coagulate, but on boiling clear up except a small amount of albumen which was precipitated. On cooling the entire amount in the test tube it was of the consistency of jelly. The tube might be turned upside down and the thick gelatinous mass adhere to the tube. The amount of urine was scanty and the specific gravity low. Bowels constipated. Prescribed elaterium triturates ⅛ gr. every three hours until free catharsis was secured; infusion of digitalis and muriated tincture of iron. Under this treatment the dropsical effusion rapidly disappeared. When the patient presented himself his weight was 133; two weeks later after the disappearance of dropsy he weighed 120. The condition of the urine much the same as when first examined, except that the quantity was increased. He gained rapidly in strength and weight, and six months later weighed 151 pounds, and expressed himself as being as strong as ever, but said he had not as good wind. His diet was restricted during the time to milk, eggs, soups, meat, broths and toasted bread. When ever he varied from this diet he did not feel so well.

He continued in about this condition until the last week in April when he had an attack of grip which caused his death on the second of May.

Interesting points: The gelatinous character of the urine; its persistency throughout the history of the case, the small amount of albumen; the marked and rapid improvement under treatment, but the failure to remove the cause. The literature on this class of cases is very unsatisfactory.

MINUTES OF JULY MEETING.

The Topeka Academy of Medicine and Surgery was called to order by the president, Dr. Barnes, July 12, at 8 p.m. The following members were present:

Drs. Agnes McKee Wallace. J. C. McClintock, S. G. Stewart, O. P. Davis, D. E. Esterly, Ida C. Barnes, Deborah K. Longshore, W. A. Wehe and Harriet E. Adams.

The name of L. C. Duncan, a graduate of the Kansas Medical college, 1895, was voted upon and he was elected.

Dr. Stewart then gave the following report of a case of cancer of the stomach.

President and members of the Academy, we present for your inspection this evening a stomach.

About the 16th of January, 1897, I was called to see Mrs. Emma D., aged 46 years. She had been ill more than a year previous to my call and had been under the care of several physicians, and a number of different opinions had been given concerning her malady, disease of the kidney, heart, etc. When called to see her she was much emaciated, was cachectic and complained of severe pain beginning at the umbilicus, passing through the body to the spine. There was no vomiting and she ate freely of a general diet. I put her upon more simple and nutritious food, under which there was a gain in strength and flesh. There was no albuminuria at this time, though there must have been at some time during her illness as there had been the diagnosis of albuminuria made by more than one of the physicians who had previously seen her. My diagnosis was cancer of the stomach.

She was under my care about two months when she visited in Kansas City and thus passed for a time from my observation. When I was called again to see her it was about the 20th of May. She was then suffering intensely, was exceedingly cachectic and emaciated, but still retained her food. Death occurred on the 23d of May; autopsy on the 24th. There were present Drs. Lindsay, Adams and myself.

NOTES.

The stomach in the region of the pylorus was adherent to the liver, spleen, pancreas, duodenum and common duct. The growth involved the lesser curvature and pyloric extremity but the pyloric orifice was not occluded. The growth was very feeble and on gently raising the stomach the cancerous mass gave way opening into the stomach cavity. Other portions of the stomach were normal in appearance as were also the other abdominal viscera.

DISCUSSION.

Dr. McClintock: I don't like these cases of cancer of the stomach because when the surgeon sees them it is too late to do the sufferer any good. The surgeon necessarily takes a very hopeless view of cancer of the stomach. Cancer in other portions of the body are more promising for operation on account of the fact that the diagnosis can be and is made early in the disease, while in the stomach the diagnosis is not made. In this case of Dr. Stewart's it was easy enough to make that diagnosis at the time he saw the case, when there were so many decisive symptoms. My point is just this that the diagnosis ought to have been made a year earlier, then there would have been an opportunity to do something that might have saved her life.

Physicians always want their patients with cancer of the stomach to vomit blood, to vomit his food within two hours after it is ingested, to show cachectic, metastases and cancers in other portions of the body. They are looking for the typical case of cancer at the pylorus as described in the text book and they must have all the symptoms. Let the cancer involve the greater curvature or the cardiac orifice and they never make a diagnosis. They ought to expect the a-typical and not the typical cancer of the stomach. In the case of a person between the age of 45 and 55 years, who suffers from obstinate constipation where the previous habit was otherwise, who complains of a constant pain in the stomach or, at least, a continued uneasiness there, with loss of appetite, I think you should be able to make a diagnosis. The cachexia, severe pain, etc., however valuable they are to us, are of no value whatever to the patient. The diagnosis is too late to help him. If taken in time the diseased portion might be removed.

Dr. Longshore: Several years ago we had a friend, a young man, suffering from continued vomiting, constipation and pain. The physicians and surgeons did not agree and a diagnosis was made only at the autopsy. It was said to be cancer. There was a constricting band some inches above the pylorus. I have always thought that in that case with an early diagnosis he might have been saved.

Dr. Esterly: I think this a very interesting case from the fact that the pylorus was not closed. In many of these cases an exploration would determine the condition and gastrotomy might be performed.

Dr. Davis: I think the time has come when the diagnosis can be made early. If the patient be over 35 years of age where there is anorexia, disturbance in the stomach, vomiting, loss of flesh and cachexia we can then either eliminate or confirm the diagnosis of cancer of the stomach with the aid of the chemical tests. The persistent absence of hydrochloric acid with lactic acid abundant is quite positive proof, at least sufficient to make an exploratory incision.

Dr. Stewart: Concerning the means of diagnosis, the symptoms are very obscure. They are the same as with catarrh of the stomach. The case that Dr. Longshore mentions looks as though there had been ulcers with constipation following. Some years ago a man came to me with a very large dilated stomach. He had been examined and re-examined so many times that he knew what every step in the examination meant. He had been told that he had cancer. We brought out a stomach tube and that was one thing he knew nothing about. His stomach held a gallon and a half of water. This man is still living and has felt comparatively comfortable ever since his course in lavage and proper feeding. He worked hard and ate hearty. As Dr. McClintock says, the diagnosis should be made early to be of value to the patient. If the stomach were cut down to one-half or one-fourth its size it would still be of service, and the patient could be fed with predigested food and by rectal feeding.

Heredity of cancer as it appears in statistics is not more than a coincidence. I think it is proper to make an exploratory incision. In twenty per cent. of the cases no tumor is ever found until the autopsy.

Some Cases of Hystero-epilepsy by Dr. Agnes McKee Wallace.

I report the four following cases of hystero-

epilepsy because of the widely different causes leading to the same effect.

I diagnosed these cases as hystero-epilepsy on account of the epileptiform nature of the convulsions, and because the pulse was no help in diagnosing hysteria, as it was decidedly irregular in each case.

On July 26, 1895, I was called to see Annie P., aged 15 years, her friends thinking from her symptoms she had been poisoned. I found her in violent convulsions, head and feet nearly touching, but no appearance of having been poisoned. Temperature was normal, pupils very slightly dilated if any, face slightly flushed, pulse irregular—that is, much more rapid during height of convulsion.

On inquiry learned that she had reached her first menstrual period on the day before. There had been a heavy rain during the morning filling the gutters, and during the afternoon she removed her shoes and stockings and waded in the water for some time.

These convulsions were very stubborn and took some time to get them under control, and were followed by mild delirium. I informed her people of the nature of the attack and warned them that they might recur at the next menstrual period, which proved to be the case. I prescribed bromide of sodium, 10 grains three times a day, under which passed the third period without trouble, after which time I lost track of her and do not know whether the improvement was permanent or not.

Case 2. September 16, 1895, M. H., age 18 years, came to consult me about some trouble which she called spells. Said she had them at irregular intervals for eighteen months, said she could sometimes tell when they were coming on but not always, I did not see her in one of these attacks until about ten days after, when I found the same epileptiform condition. Almost normal pupils, no temperature, face very slightly flushed, but with irregular pulse and delerium. About eighteen months before I saw her, her brother being out of work and despondent attempted suicide by shooting in her presence, the fright of which brought on the first attack, and from that time whenever he was absent longer than usual she would become uneasy and frightened finally having one of these attacks. This girl I put upon bromide of sodium also capsules of valerianic ether with instructions to take them when she felt the condition approaching. I kept her under supervision for several months, the last two of which she had seemed perfectly well when I advised her to change location which she did with happy results. I heard from her about three months ago that she had been perfectly well since leaving Topeka.

Case 3. April 18, 1896, Mrs. C., age 21 years. Consulted me for some kind of fits. Asked how long she had been subject to them, said since her baby was born three years ago. She gave the following history. She was married at 17 and went to live on a farm. When her first child was born she was alone with no one nearer than a mile and a half. The child was born at ten o'clock in the morning, and when help came at four o'clock in the afternoon, the baby was dead, and she nearly so. The shock of this threw her into convulsions, and she had had them at varying periods since. She was not very happy in her marriage, and dreaded another child birth, so had used means to prevent conception. I gave her my standby in such cases, bromide of sodium, and advised her to allow herself to become pregnant, which she did. The attacks became less frequent and less severe, and since the sixth month of pregnancy to the present time has been well.

Case 4. May 30, 1897, Mrs. E., age 24 years. This case is very peculiar, and puzzled me for some time. She fell from a fence and received a shock which threw her into convulsions. When I first saw her the symptoms were so pronounced that I feared an effusion, and enforced quiet for a week. The spasms in this case were unilateral and exceedingly severe, but there was an expression of the face which suggested hysteria. On July 6 was called to see her, when she had hysteria, pure and simple, which confirmed my suspicions of the first attack. I will not be able to watch this case as she has passed out of my hands.

These cases were all of unusual interest to me, as the conditions were so distressing. The most distressing feature to the relatives being, what they suppose is an effort to breathe, when in reality they are really making an effort not to breathe, and which stage comes on after the severest of the convulsions. And the delerium is also a distressing feature.

The last case was very honest when I questioned her. She said she was not unconscious any of the time during the attack after her fall, but that it was impossible to prevent the spasm of the muscles, and while she could hear all that was said, it was impossible to speak.

DISCUSSION.

Dr. Stewart: These cases are always interesting. There is some cause somewhere. It cannot always be found. These cases are properly epileptiform. There are some cases of epilepsy in which the manifestations are so slight as to make them difficult to distinguish from hysteria, and some cases of hysteria that can scarcely be distinguished from epilepsy. I recall one case of hysteria in which the patient would simulate death. I could barely hear the heart while the pulse beat I was not sure of, but the eye was bright and looked directly at me when I raised the lid. Her jaw was dropped open and I poured her mouth full of whisky and held my hand over it. I held it firm until I saw a flush spread over her cheek when she suddenly sprang up and blew the whisky all over me. A drachm dose of epicac or a good dose of apomorphia will put an end to an attack.

Dr. Davis: These are sometimes difficult to diagnose. One point of differential diagnosis is that in epilepsy the sufferer falls any place, but in hysteria they always hunt a soft spot or somebody's arms. I have seen two different occasions where an attack of hysteria was brought promptly to an end by the means Dr. Stewart mentioned.

Dr. Wallace: I think the name hystero-epilepsy is unfortunate and that epileptiform hysteria would be better. These cases did not hunt a soft place to fall but fell wherever the attack seized them. I did not use bromide of soda in the accute stages but whatever came most convenient. In those cases resulting from traumatism or fright the nervous system is involved and bromide of soda is beneficial.

HARRIET E. ADAMS, M.D.,
Secretary.

IDA C. BARNES, M.D.,
President.

Extravasation of Urine.

A remarkable case of extravasation of urine is reported by Richard Barwell (*Medical Press and Circular*). The man, æt. 36, previously to November was perfectly healthy. One night, after coitus, in which nothing unusual occurred, he went to sleep and on waking next morning found the scrotum much swollen. During the next few days the swelling increased. Five days after he had a subnormal temperature, a rather feeble, quick pulse 108, tongue slightly furred, the constitutional symptoms in regard to the local condition being slight, and he said he felt quite well up to four hours ago, and even now only "a little down." The scrotum was greatly distended, boggy to touch, red and studded with blotches here and there of dark brown discoloration. The penis was but slightly swollen, or reddened and free of sloughy spots, while the perineum, much distended to within a very short distance of the anus, exhibited two sphacelated spots. He asserted that he never had any difficulty in passing urine, which flowed in a full stream. Deep incisions were made in the perineum and scrotum, exposing the superficial muscles of the urethra and the testicles. The sodden tissues were full of urine, with the usual ammoniacal, sloughy odor. One bleeding vessel, being too rotten to bear either torsion or ligature, was secured by leaving it on a pair of forceps; the very soft state of all tissues rendered interference with the urethra inadvisable. Five days after the incisions were made he lost about four ounces of blood by the rupture of a

vessel in or close to the right testicle. This depressed his health considerably, but freer stimulation overcame the condition in about eight hours. The rare and interesting features of this case lay in the local condition. Rupture of the urethra, as an immediate result of coitus, had once or twice been reported, but invariably in the penile portion of the tube, never as far as he was aware in the membranous part. A No. 12 catheter passed into the bladder without encountering the slightest obstacle, and treatment for the urethra was therefore unnecessary. The man lost by sphacelus about four-fifths of the scrotum, but the parts healed and the whole was quite sound exactly six weeks after, the testicles being enclosed in a new bag, which, though it looked tight, interferred neither with comfort nor function.

Glandular Fever.

Glandular fever was recently the subject of an interesting discussion before the Philadelphia County Medical Society. Dr. Albert E. Roussel (*Medical Bulletin*), who reported four cases, concluded that we are in reality dealing with a group of symptoms in the main sufficiently distinct to merit the designation of a disease. These cases occurred all in one family and this would seem to emphasize their infectious or contagious nature. It was also notable that one of Dr. Roussel's patients was an adult, as only two other similiar cases have been recorded. The temperature records of his cases were rather below those mentioned by other authors, while the pulse rates were somewhat higher. Except, perhaps, in one instance the glandular swelling was unilateral and observed within the first thirty-six hours. The surrounding skin was normal and in no instance did suppuration result. There was no involvment of glands in other parts of the body, no enlargement of the spleen and liver, and no albumen was present in the urine. Dr. Roussel states that the treatment in these cases is necessarily symptomatic. The use of small doses of calomel at the onset has according to different observers been of particular benefit. He has also made use of a small dose of salophen, which seemed to somewhat relieve the pain and general malaise. The administration of iron is indicated during convalescence. In view of the increasing interest shown in glandular fever during recent years it is well to bear in mind Dr. Roussel's suggestions as to the value of salophen in alleviating the general discomfort.

Surgery for Typhoid Perforations.

The Times and Register.

The advance of abdominal surgery is well shown by a paper in the *Medical and Surgical Reporter*, of Philadelphia, in which Dr. Joseph Price relates thres cases of recovery following the closure of perforation of the bowels through typhoid ulcers. Of the third case he writes: "I never attempted to close a filthier peritoneal cavity than this, either ante mortem or post mortem."

Dr. Joseph Price urges that every case of perforation should be operated on, for surgery offers the only chance of recovery, although the mortality from such operations must always be high.

At the meeting of the Royal Medical and Surgical Society on January 26, of this year, Dr. Lauder Brunton and Mr. Bowlby related a case in which symptoms of perforation of the intestine developed suddenly about a month after the patient was convalescent from typhoid fever. About eighteen hours after the first onset of pain the abdomen was opened, a perforation was found and closed by Lembert sutures, and the parts were thoroughly cleaned. Recovery took place, the patient regaining his normal weight in the course of a few months. It was stated that this was the third recorded case of the kind submitted to operation in this country, and the first successful one.

At the same meeting Dr. Herringham and Mr. Bowlby recorded another case in which the abdomen was opened owing to the occurrence of symptoms of perforation during

the convalescence from typhoid fever, but in which no lesion was found. The patient recovered. This case was brought forward to show that in cases of recovery from supposed perforation without operation there may not really have been any perforation at all. This is a most important fact.

Salol in Progressive Pernicious Anemia.

G. Diebella (*La Sem. Med.*,) had occasion to observe a 15-year-old patient suffering from a progressive pernicious anemia of unknown origin (the dejections containing no parasites, either adult or embryotic), that had resisted treatment with iron, bone-marrow, quinine, arsenic, and inhalations of oxygen. Despite these various means, given one after another for a period of five months, the patient's condition became steadily worse; the weakness and emaciation became extreme, and finally delirious attacks set in.

It was then that recourse was had to salol, suspecting that the malady was caused by an auto-infection of intestinal origin. The remedy was administered in one grain doses, repeated five times daily. At the end of a week, the delirious attacks had succumbed, the appetite had become good, and the strength was such that the patient, who until then had been obliged to remain abed, could get up. This amelioration constantly increased as long as the salol was given. The disuse of the remedy was twice attempted, but each time a return of the symptoms followed.

At first 5 gme. of salol were given per day, then reduced to 3 gme., and three months later all treatment was stopped, the cure appearing to be complete.

At this period the strength of the patient had completely returned, and the physical indications of the anemia (pallor, blowing heart-murmur, tumefaction of the liver and spleen, and characteristic changes in the blood) had disappeared.

On the other hand, a Russian army surgeon, Dr. M. B. Blumenau, has observed at the military hospital of Grodno a case of pernicious anemia, which was cured with remarkable rapidity and completeness by the ingestion of bone-marrow. The patient was a soldier, twenty-three years of age, in whom the anemia had supervened as the result of severe dysentery. Among other symptoms, he presented malleolar edema, ascites and a certain degree of dilation of the right half of the heart, with a systolic murmur at the apex. He was so weak as to be unable to rise. No favorable effect having been obtained by the administration of large doses of iron and arsenic. Dr. Blumenau ordered the patient 90 gme. daily of raw bone-marrow, which he took either on bread or in soup. This treatment, without any other medication, was followed by the disappearance within two months and a half of all the morbid phenomena, including weakness, edema, ascites, and cardiac disturbances.

Silver as an Antiseptic from a Surgical and Therapeutic Viewpoint.

American Medico-Surgical Bulletin.

Dr. Rieffel, in *Revu. de Chir.*, gives some account of Crede's (of Dresden) contribution to the transactions of the twenty-fifth Congress of the German Surgical Society on this subject—*Centratl. f. Chirurg.*

Crede, accepting silver as a powerful antiseptic on the authority of Behring. Koch, Miller, etc., made use of gauze impregnated with silver solution only to find that, when the wounds were very infectious and secreted freely, the silver soon disappeared and the sterilizing action ceased. The silver was attacked by chemicals formed in the tissues, e. g., lactic acid which, uniting with it, formed a soluble lactate of higher germicide power. But, this lactate (actol of commerce), in contact with wounds, very often irritated them and caused intolerable pain, due to its great solubility (1 in 15). After trials, Crede settled upon the citrate (itrol) which up to the present has given excellent results. It is soluble in 3800 parts of water, is colorless, inodorless, non-irritating, non-toxic, easily pulverizable, and keeps well.

Its antiseptic value is equal to that of lactac of silver.

Either an old or a recent wound is powdered with the itrol, and dressed with itrol gauze to remain undisturbed for eight days if needed with absolutely no reaction and with a minimum of secretion. Finally he insists on the incontestable value of hypodermic injections of actol in acute injections and especially in erysipelas.

Lauenstein (Hamburg) confirmed Crede's claims, and valued them the more because of their clinical proving. He had employed sutures impregnated with silver, and no longer found suppurations at the point of the sutures. He also disinfects the skin with silver before operation. In 147 cases, in spite of the presence of the white staphylococcus, primary union was possible in the majority of cases.

Kolliker (of Lepzig) lauds iodoform, combined with derivative of formaldehyd, because sterilizable at 140° C., inodorous and non-irritating.

Alkalinity of the Blood and Microbic Infection.

British Medical Journal.

Josehh V. Fodor (*Centralbl. f. Bakt. u. Parasitenk*), records a number of experiments showing the influence of the alkalinity of the blood or diseases produced by microorganisms. Four series of experiments on animals are first reported, which show clearly that, by the administration of alkaliec (sodium bicarbonate by the mouth or by subcutaneous injection), the power of resistance against infection with cultures of anthrax baccilli is greatly increased. The normal alkalinity of the blood was determined by the examination of seventy-six healthy rabbits, and four experiments are reported, showing the increase in the alkalinity of the blood which occurs after the administration of sodium bicarbonate. The author then records the results of a large number of observations on the alkalinity of the blood in rabbits after infection with the bacilli of anthrax, cholera, typhoid fever, tuberculosis and erysipelas. These observations show that in the living organism, after infection with certain baccilli, there is first an increase of the alkalinity of the blood, and then a diminution of the same, more or less. If the infection is fatal, the diminution of the alkalinity is marked and progressive; if not fatal, the diminution is slight, and is followed by an increase of the same, in consequence of which the alkalinity of the blood becomes permanently higher than before the infection. Thus there exists a connection between the pathological action of certain bacteria and the alkalinity of the blood. Those rabbits having the greater alkalinity of the blood, as well as those in which the alkalinity of the blood is increased to a greater extent after infection, have greater power of resistance against certain infectious organism (anthrax bacilli) than the rabbits in which the alkalinity of the blood is less. It appears, therefore, that the degree of alkalinity of the blood, as well as the power of the organism to increase this alkalinity with corresponding intensity after infection, is of essential influence upon humanity.

The Surgeon in His Relation to the Public.

M. O. Terry, M.D., in Journal of Orificial Surgery.

Unfortunately for human life, its limitations prevents the surgeon from planting in the minds of the profession as firmly as need be any progressive ideas he may have advanced before his presence is demanded in "worlds unknown." At times the idea has been so brilliantiy set forth and the clinical support has been so convincing that the ripple of thought will be converted into a wave which takes the profession by storm. At other times the arrest of the magic pen, with its logical current of thought, suspends the progress set in motion until taken up by another. There may be a wise provision in this method of progress which we are not perfectly familiar with, so we will drop that element of destiny and look at the unfortunate surgeon who dares to move in advance,

treading under foot the accepted teachings of the past.

Patients are dying daily from neglect, and patients are dying daily from too much enthusiasm with the knife.

Within my remembrance one of America's most brilliant surgeons has snatched from a physician, made famous by his originality of thought in formulating a law, fully one-third of the supposed value of it by simply giving his mind to nerve distribution. It was soon made obvious to this logical thinker that a pathological condition did not always exist at the seat of pain. That a prescription for a reflex pain was in the main ridiculous. That the source of the pain was the region to relieve by methods either surgical or medical. He has amply proven the truth of his observation by practice, but is yet ridiculed by the majority of the profession, and it will be more than a decade of years after he has been called to other regions before these truths will be fully accepted. The cures made under the new comprehension of facts but show what victims we have made of the public during our onward march from darkness into daylight.

The human body is one vast mystery. With all of our powers of reasoning we cannot comprehend that intelligence which takes charge of our food after it has been placed in the stomach; how the elements needed are abstracted from the emulsion, and those not needed removed; just how we use our brains in almost unconscious locomotion; the nature of the sentinel which presides over respiration, awake or asleep, and so on. It would seem reasonable, in view of our limited comprehension of the processes of life, and it would place us in a less ridiculous light if we should admit at once that the Creator completed his work in the model called man rather than to question his ability in regard to contemplating the anatomical work in question.

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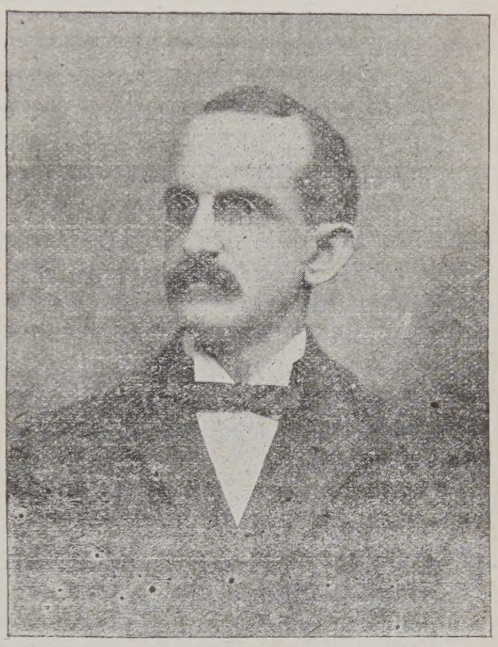

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Imperial Granum.

The following letter, just received by the Imperial Granum Company from the publisher of one of the most influential of American Medical journals, must certainly be most satisfactory to the manufacturers of that sterling food preparation:

"Beginning with the grip, I ended up with a severe attack of gastric fever. This gave me an excellent opportunity to test Imperial Granum, and I assure you it was a great pleasure to have something that at once was so pleasant to the taste, so nourishing, and so grateful to a delicate stomach. After being compelled to abstain from food for three or four days, I partook of the Imperial Granum quite freely, without the least disturbance of the stomach. As we have had much experience in dealing with delicate and sensitive stomachs, we thought it very remarkable that any food should prove so nourishing and yet could be taken so freely under such circumstances. I was glad to have such an opportunity to test your food, and I shall always be glad to recommend it."

Chloral in Disease of Children.

Treatment.

Chloral hydrate belongs to a class of drugs the dangers of which are so emphasized that their good qualities are apt to be lost sight of. I do not advocate its indiscriminate use, but when it is employed suitably, and in doses sufficient to produce a definite effect, it may prove of value.

It is essential that the drug be absolutely pure, that the patient should be kept in bed, and carefully watched when full doses are employed; with these precautions no bad effect, either immediate or remote, will follow. The appetite is not interfered with, the intestinal functions are not disordered symptoms of cardiac failure do not occur, and the drowsiness and lassitude produced by full doses pass off when the use of the drug is stopped. It may be administered alone or with tincture of digitalis when cardiac complications exist, and in some cases it may be advantageously combined with potassium or ammonium bromide.

In three cases I employed chloral hydrate with good results. The first was that of a girl 8 years old subject to epileptic attacks, which were controlled by chloral hydrate in combination with potassium bromide. A period of four months has elapsed since the occurrence of the last fit, and the patient's general health is excellent. The second was one of progressive chorea in a girl of 10 years; the cardiac action was rapid and somewhat weak, and a systolic murmur of mitral origin was present. Active measures were called for, and four ounces of brandy were given every day, and ten grains of chloral every four hours. After four doses had been given, the patient obtained about twenty-four hours' sleep and rest, and the use of chloral was then resumed, in ten-grain doses twice a day. On the eighth day the jerking had practically ceased, and co-ordinating movements of the limbs could be carried out wiih precision. The use of the chloral was discontinued five days later, and the patient was allowed to get up. The third was one of bronchitis and asthma in a child over three years of age, and it illustrates the effect of chloral in the paroxysmal dyspnœa of asthma.

These affections resemble each other in being associated with an unstable condition of the nervous system, which manifests itself by some disturbance of function. This disturbance by repetition leads to the production of a vicious habit which it is difficult to cure. It is probable that no single drug is suited to all cases of this description, but in my experience chloral is servicable in some cases. The best method of administration is to give at first in full doses so as to break the habit as quickly as possible, and then in doses sufficiently large to keep the evil tendency in check.

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